

I. INTRODUCTION

- A. Purpose: To provide Department standards for the extraction of flammable and combustible liquids from underground tanks.
- B. Scope:
 - 1. This regulation shall pertain to all individuals, companies and corporations that engage in the removal of fuel from underground tanks.
 - 2. The requirements contained herein shall be instructional for Fire Prevention Division personnel and informational to other Department members.
- C. Author: The Deputy Chief of the Prevention Services Bureau, through the Assistant Fire Chief (Fire Marshal) of the Fire Prevention Division, is responsible for the content, revision, and periodic review of this regulation.

II. RESPONSIBILITY

- A. Fire Prevention Division Personnel are responsible for verification of compliance with the standards contained herein and the subsequent issuance of necessary permit(s).

III. POLICY

- A. The requirements contained in this regulation are minimum standards and shall be enforced by all members of this Department when such operations are proposed or encountered.

IV. PROCEDURES

- A. Permits: A permit shall be issued for the handling of flammable or combustible liquids prior to the extraction of liquids from underground tanks 1999 U.F.C. Section 105.8 F3

B. Fuel extraction from Underground Tanks using Portable Pumps:

1. Pumps must bear the Underwriters Laboratory approval or other recognized testing agency certification or be approved by this Department for use in hazardous atmospheres.
2. Pumps shall be provided with pressure relief discharge back into the underground tank, pump suction or other suitable location or it shall be provided with interlocks to prevent overpressure.
(2002 Fire Code 7903.1.3.2.1)
3. Static protection shall be provided to prevent the accumulation of static charges during transfer operations through open domes where Class I liquids are transferred, or where Class II and III liquids are transferred into tank vehicles or tank cars that could contain vapors from previous cargoes of Class I liquids.
(2002 Fire Code 7904.5.1.7)
4. When transferring product from one underground tank to another, the connection between the discharge hose and the tank receiving the product must be vapor tight.
5. When top loading a tank vehicle with Class I and II liquids without vapor control, valves used for the final control of flow shall be of the self-closing type and shall be manually held open, except where automatic means are provided for shutting off the flow when the tank is full. When used, automatic shutoff systems shall be provided with a manual shutoff valve located as a safe distance from the loading nozzle to stop the flow of the automatic system fails.

When top loading a tank vehicle with vapor control, flow control shall be in accordance with Section 7904.5.1.10, self closing valves shall not be tied or locked in the open position.

(2002 Fire Code 7904.5.1.9)

- a. The discharge hose shall be equipped with a shutoff nozzle or a cap that will prevent liquid spills when moving the hose from one compartment to another or when removing the hose from the truck at the termination of the operation.

B. Fuel Extraction from Underground Tanks using Flammable Liquid Transports with Permanently Mounted Pumps Operated by Power Takeoff:

1. Tank vehicle must be approved by the California Highway Patrol (Motor Carrier Safety) (323) 644-9557 for the transportation and handling of flammable liquids on public roads and highways in the State of California.
2. Discharge lines from P.T.O. operated pumps must not be equipped with rubber hose connections. All pipe joints are to be welded or connected by Victaulic couplings.
3. Vapor recovery return piping shall be capped at all times during product removal unless vapor recovery is being affected.
4. Prior to extraction of any product from underground storage to a cargo tank, a measurement of the quantity in the underground tanks shall be made. If, after the measurement has been made, it is determined that a single cargo tank compartment can accommodate all the product, the compartment lid shall be kept closed using normal venting provided in the lid. If compartment will not accommodate all the product, the lid shall be open to view liquid level in order to prevent overflow.

Outage: The vacant space in a cargo tank or compartment thereof used in the transportation of flammable or combustible liquids shall not be less than 1 percent. Sufficient space shall be left vacant to prevent leakage from or distortion of such tank or compartment by expansion of the contents due to the rise in temperature in transit

5. Fire Protection: The vehicle shall be equipped with a fire extinguisher having a minimum rating of 2-A, 20 B:C. During unloading, the fire extinguisher shall be out of the carrying device on the vehicle and shall be 15 feet or more from the unloading valves. 2002 Fire Code 7904.6.7